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# Water-Soluble Gold Nanoparticles Protected by Fluorinated Amphiphilic Thiolates

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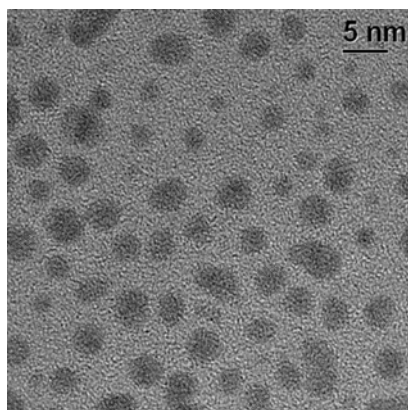
<sup>‡</sup> University of Groningen

<sup>§</sup> University of Bologna

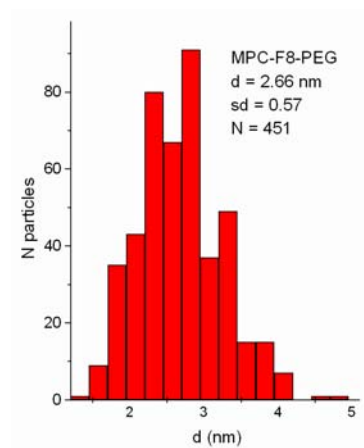
<sup>\*</sup> Lucia Pasquato: Tel. +39040 5582406, Fax +39040 5583903, e-mail: lpasquato@units.it

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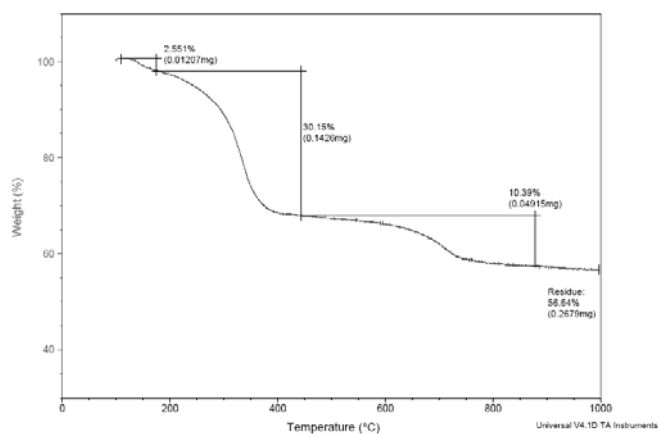
a)



b)

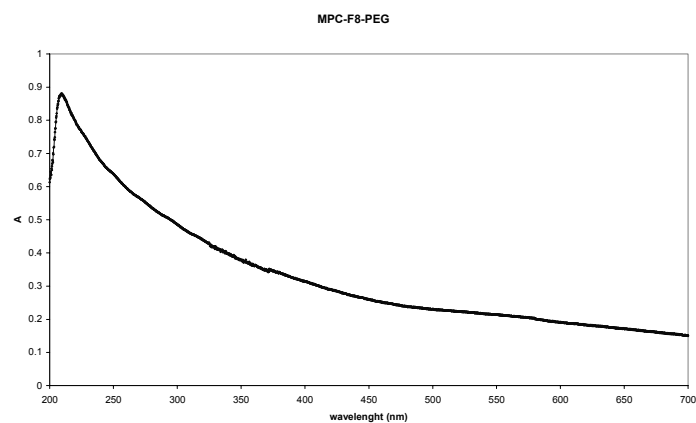


**Figure S1.** a) TEM image and b) histogram of cluster sizes 2.7 nm for a sample of MPC-F8-PEG with a thiol **1**:Au molar ratio 2:1.

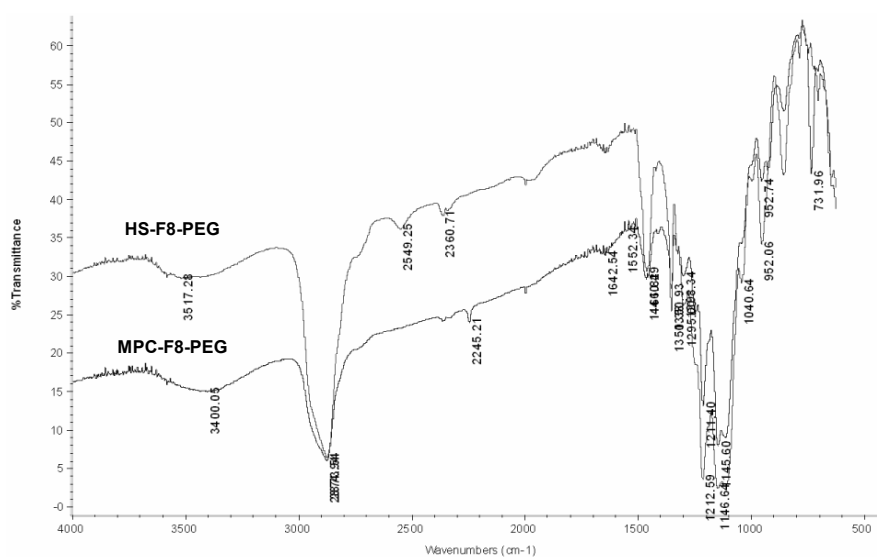


**Figure S2.** TGA analysis of MPC-F8-PEG prepared with a thiol **1**:Au ratio 2:1.

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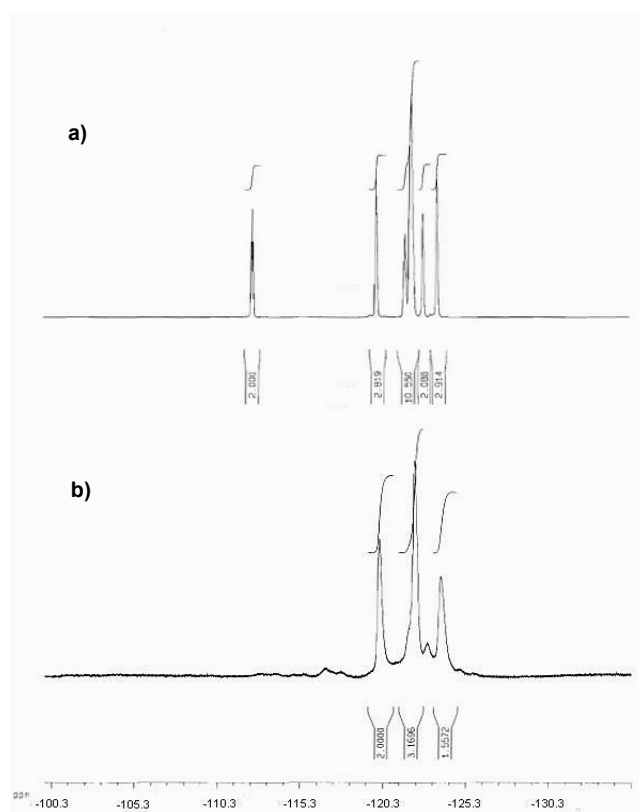


**Figure S3.** Uv-visible spectrum (MeOH,  $c = 0.1$  mg/mL) of MPC-F8-PEG (thiol 1: Au molar ratio 2:1).

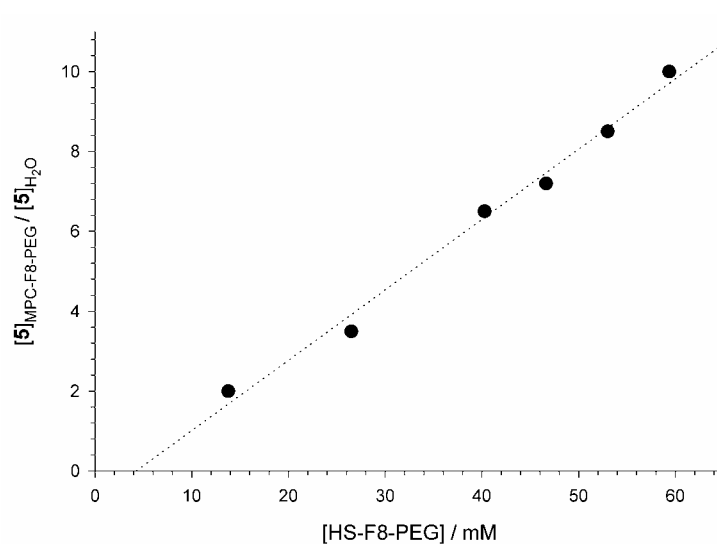


**Figure S4.** IR spectra of thiol 1 (neat) and MPC-F8-PEG ( $\text{CDCl}_3$  solution).

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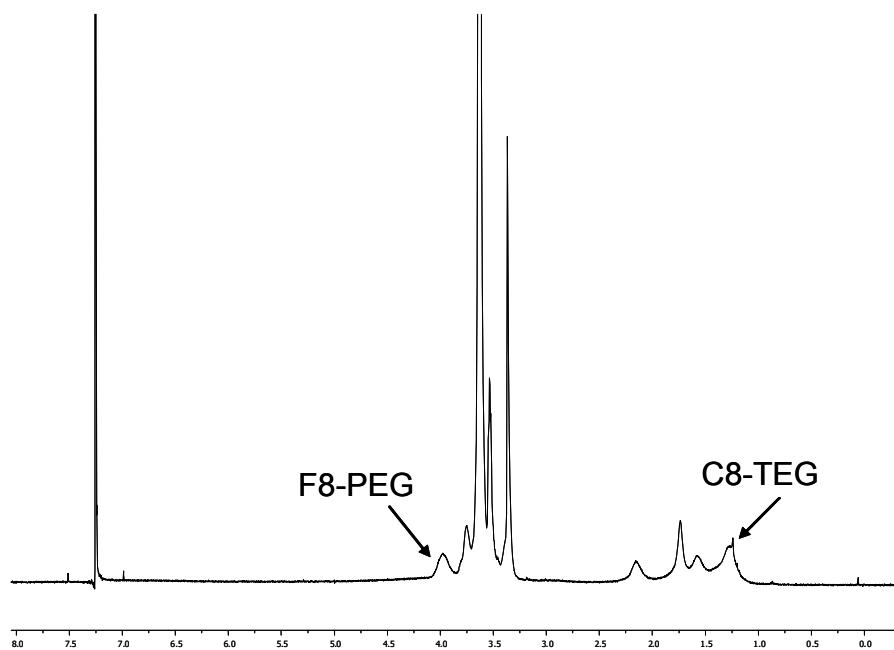


**Figure S5.** a)  $^{19}\text{F}$ -NMR ( $\text{CDCl}_3$ , 300 MHz) of AcS-F8-PEG and b)  $^{19}\text{F}$ -NMR ( $\text{CDCl}_3$ , 300 MHz) of MPC-F8-PEG.



**Figure S6.** Plot of the ratio between the concentration of **6** partitioned in the monolayer and that of the free species as a function of [HS-F8-PEG] bound to the gold.

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**Figure S7.**  $^1\text{H}$ -NMR ( $\text{CDCl}_3$ , 400 MHz) of MMPC-C8-TEG/F8-PEG.